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**Melkent et al.**

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(54) **IMPLANTABLE MEDICAL DEVICES**

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See application file for complete search history.

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(57) **ABSTRACT**

Implantable medical devices are provided. In one embodiment, a device includes a body having an external surface defining an outer profile of the device. The body includes a porous matrix including a series of interconnected macropores defined by a plurality of interconnected struts each including a hollow interior. A filler material substantially fills at least a portion of the series of interconnected macropores. The external surface of the body includes a plurality of openings communicating with the hollow interior of at least a portion of the plurality of interconnected struts. In a further aspect of this embodiment, the external surface includes exposed areas of the filler material and porous matrix in addition to the exposed openings. In another aspect, the porous matrix is formed from a bioresorbable ceramic and the filler material is a biologically stable polymeric material. Still, other aspects related to this and other embodiments are also disclosed.

**44 Claims, 3 Drawing Sheets**

